

CLEAN COPY OF THE ABSTRACT:

A semiconductor device, including a memory cell region and a peripheral circuit region, comprises an insulating film, having an upper surface, formed on a major surface of a semiconductor substrate to extend from the memory cell region to the peripheral circuit region. A capacitor lower electrode assembly is formed in the memory cell region to upwardly extend to substantially the same height as the upper surface of the insulating film on the major surface of the semiconductor substrate. Additionally, the lower electrode assembly includes first and second lower electrodes that are adjacent through the insulating film. A capacitor upper electrode is formed on the capacitor lower electrode through a dielectric film, to extend onto the upper surface of the insulating film. The capacitor lower electrode includes a capacitor lower electrode part having a top surface and a bottom surface. A semiconductor device organized, as just described, permits implementation having a high density of integration while ensuring the capacitor exhibits high reliability and a constant capacitance.

